| _   | _   | _  |              |       |
|-----|-----|----|--------------|-------|
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Application/Control No.

10/822,183

Examiner

GRIVNA, EDWARD Art Unit

Howard L. Williams

2819

Applicant(s)/Patent under

Reexamination

Rejected Allowed

(Through numeral) Cancelled

Restricted

Non-Elected N

Interference

**Appeal** Α

0 Objected

| Claim                  |  | Date .                                |                                       |          |              |              |  |  |  |                 |
|------------------------|--|---------------------------------------|---------------------------------------|----------|--------------|--------------|--|--|--|-----------------|
| - CI                   | $\vdash$   | 1                                     |                                       | 1        | ual<br>T     | _            | _  | ·  | $\vdash$   |                 |
| Final                  | Original   | 05-12-05                              | < < < 10-19-05                        |          |              |              |  |  |  |                 |
| -                      | 1  | <b>√</b>                              | 1                                     |          | T            | Τ            | T  | 1  | $\vdash$   | П               |
|                        | 1<br>2<br>3<br>4<br>5  | V                                     | V                                     |          |              |              |  |  |  | П               |
|                        | 3  | √                                     | √                                     |          |              |              |  |  |  |                 |
|                        | 4  | √                                     | ✓                                     |          |              |              |  |  |  |                 |
|                        | 5_   | √                                     |                                       |          | _            |              |  |  |  |                 |
|                        | 6  | 1                                     | ✓                                     |          | _            | L            | <u> </u>   | <u></u>  | <u> </u>   | Ш               |
|                        | 7  | ✓                                     | ✓                                     | _        |              |              | <u> </u>   |  |  | Ш               |
|                        | 8  | Į√                                    | ✓                                     | _        | _            | <u> </u>     | Ļ  | _  | <u> </u>   | Ц               |
| <u> </u>               | 9  | ΙÝ                                    | ĬΫ́                                   | <u> </u> | <u> </u>     |              |  | <b> </b>   | ļ  | Ш               |
|                        | 10   | Į√,                                   | Ϋ́                                    |          | <u> </u>     | <u> </u>     | <u> </u>   | ╙  | <u> </u>   | Ш               |
| <u> </u>               | 11   | 1                                     | Ϋ́                                    |          | -            | ┡            | ļ  | -  | -  | $\vdash$        |
|                        | 12   | ۲,                                    | Ý                                     |          | $\vdash$     | $\vdash$     | ⊢  | <u> </u>   | ├  | H               |
| <u> </u>               | 13   | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | <u> </u> | $\vdash$     | $\vdash$     | ⊬  | ⊢  | <del> </del>                                     | $\vdash \vdash$ |
|                        | 15   | 7                                     | V                                     |          | ⊢            | ├            | <del> </del>                                     | <u> </u>   | ├  |                 |
|                        | 16   | 1.7                                   | ./                                    | -        |              | ┼            | ⊢  | <del> </del>                                     | $\vdash$   | $\vdash$        |
| <b> </b>               | 77   | ./                                    | V                                     | -        |              | ┼            | -  | ⊢  | ⊢  | Н               |
| $\vdash$               | 18   | ./                                    |                                       | —        | -            | H            |  | ├-   | ├  | $\vdash$        |
|                        | 19   | ./                                    | \<br>\<br>\                           | _        | -            | $\vdash$     |  | ┢  | <del> </del>                                     | Н               |
|                        | 20   | J                                     | ./                                    | _        | -            | $\vdash$     |  |  | ┢  | ├─┤             |
|                        | 21   | Ť                                     | _                                     |          | _            | <del> </del> | ┢  |  |  | Н               |
|                        | 22   |                                       |                                       |          | Ι-           | t            |  |  | -  | $\vdash$        |
|                        | 23   |                                       | _                                     |          |              |              |  |  |  | H               |
|                        | 24   | -                                     | _                                     | _        |              |              |  | Т  | T  | П               |
|                        | 25   |                                       |                                       |          |              |              |  |  | $\Box$   |                 |
|                        | 26   |                                       |                                       |          |              |              |  |  |  |                 |
|                        | 27   |                                       |                                       |          |              |              |  |  |  |                 |
|                        | 28   |                                       |                                       |          |              |              |  |  |  |                 |
| <u> </u>               | 29   | <u>_</u>                              |                                       |          | L            | L            | _  |  |  | Ш               |
|                        | 30   |                                       |                                       |          |              | L            | _  | L  |  | Ц               |
|                        | 31   | L                                     |                                       |          | _            | _            | <u> </u>   | L  | _  | Ш               |
|                        | 32   |                                       |                                       | _        | <u> </u>     | <u> </u>     |  | <u> </u>   | <del> </del> _                                   | Ш               |
| <u> </u>               | 33   | $\vdash$                              |                                       |          | $\vdash$     | ├-           | <del> </del>                                     | <u> </u>   | _  | Щ               |
| $\vdash$               | 34   | $\vdash$                              | $\vdash$                              |          | <u> </u>     | ├-           |  | ├  | <del>                                     </del> | Н               |
| <del>  </del>          | 35   | $\vdash$                              | Н                                     | _        |              | ├            | <del> </del>                                     | $\vdash$   | ├-   | $\vdash \vdash$ |
| $\vdash\vdash$         | 6<br>7<br>8<br>9<br>10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30<br>31<br>32<br>33<br>34<br>35<br>36<br>37 | Н                                     | $\vdash$                              |          | -            | <del> </del> | $\vdash$   | -  | ├  | $\vdash \dashv$ |
| ├─┤                    | 38   | Н                                     |                                       |          | -            | $\vdash$     | $\vdash$   | <del> </del>                                     | $\vdash$   | Н               |
| $\vdash$               | 30   | $\vdash$                              | $\vdash$                              |          | <del> </del> | -            | _  | <del> </del>                                     | ⊢  | Н               |
| $\vdash$               | 39<br>40   | Н                                     | $\dashv$                              |          |              | ┢            | <del>                                     </del> |  | -  | H               |
|                        | 41   |                                       |                                       |          | -            | $\vdash$     | $\vdash$   | <del>                                     </del> |  | $\vdash$        |
| $\vdash \vdash \vdash$ | 42   | Н                                     |                                       | -        |              | $\vdash$     | $\vdash$   | $\vdash$   | Н  | Н               |
|                        | 43   |                                       | $\dashv$                              | _        |              | $\vdash$     |  | -  |  | $\vdash \vdash$ |
|                        | 44   | Н                                     | $\dashv$                              |          | _            |              |  | $\vdash$   |  | H               |
|                        | 45   | П                                     |                                       |          |              |              |  | 1  | $\Box$   | $\vdash$        |
|                        | 46   | $\Box$                                |                                       |          |              |              |  |  |  | $\sqcap$        |
|                        | 47   |                                       |                                       |          |              |              |  | П  |  | П               |
|                        | 48   |                                       | 1                                     |          |              |              |  |  |  |                 |
|                        | 49   |                                       |                                       |          |              |              |  |  |  |                 |
|                        | 50   |                                       |                                       |          |              |              |  | - "  |  | П               |

| Cla             | aim      | Date   |              |                  |          |                                     |          |            |          |            |
|-----------------|----------|--|--------------|------------------|----------|-------------------------------------|----------|------------|----------|------------|
| Final           | Originat |  |              |                  |          |                                     |          |            |          |            |
|                 | 51       | <del>                                     </del> | T            | ╁                | Т        | $\vdash$                            | l        |            | ļ        | ļ <u>-</u> |
|                 | 52       |  |              | $\vdash$         |          |                                     |          | П          |          |            |
|                 | 53       |  |              | _                |          |                                     |          |            |          |            |
|                 | 54       |  | Γ            |                  |          |                                     |          |            | Г        | П          |
|                 | 55       |  |              | П                |          |                                     |          |            |          |            |
|                 | 56       |  |              |                  | Π        |                                     |          |            |          |            |
|                 | 57       |  |              |                  |          |                                     |          |            |          |            |
|                 | 58       |  |              |                  |          |                                     |          |            |          |            |
|                 | 59       |  |              |                  |          |                                     |          |            |          |            |
|                 | 60       | L  | L            | 上                | <u> </u> |                                     |          |            |          |            |
|                 | 61       | <u> </u>   |              | <u> </u>         | ļ        |                                     | <u>L</u> |            |          |            |
| <u></u>         | 62       | <u> </u>   | 乚            |                  | <u> </u> | L                                   | L        |            |          |            |
| L               | 63       | _  | ļ            |                  | <u>.</u> | L                                   |          |            | _        |            |
|                 | 64       | _  | L            | <u> </u>         | <u> </u> |                                     |          |            | <u> </u> |            |
|                 | 65       |  | L            | Ļ                | <u> </u> | _                                   | L        | _          | <u> </u> | Ш          |
|                 | 66       | _  |              | _                | <u> </u> | _                                   | _        | ļ          | <u> </u> |            |
|                 | 67       | _  |              | <u> </u>         | ــــ     | _                                   |          | _          | _        | L.,        |
| <u> </u>        | 68       | _  | _            | _                |          | <u> </u>                            | <u> </u> | _          | <u> </u> | Щ          |
|                 | 69       |  |              | _                |          | <u> </u>                            | _        | <u> </u>   | <u> </u> | Ш          |
| <u> </u>        | 70       |  | <u> </u>     | <u> </u>         |          | <u> </u>                            | _        | <u> </u>   | <u> </u> | Ш          |
|                 | 71       | <u> </u>   |              | Ŀ                | <u> </u> | <u> </u>                            | <u> </u> | <u> </u>   |          |            |
|                 | 72<br>73 |  | <u> </u>     | $\vdash$         | -        | <u> </u>                            | <u> </u> | <u> </u>   | L        | Ш          |
|                 | 74       | <u> </u>   | <del> </del> | ├-               |          | -                                   | ├        | ⊢          | <u> </u> | Н          |
| -               | 75       | _  | -            |                  | <u> </u> | -                                   |          | ┝          | ⊢        | Н          |
|                 | 76       | -  | ⊢            | ┝                | -        | ⊢                                   | ├        | ⊢          | <u> </u> | Н          |
|                 | 77       | ┝  | ⊢            | ├                | $\vdash$ | ├                                   | ├─       | ┢          | -        | Н          |
|                 | 78       | ┢  | -            | ┢                | $\vdash$ | ├                                   | ╌        | -          | -        | Н          |
| $\vdash$        | 79       | $\vdash$   | -            |                  | ┢        |                                     | ├─       | ╁          | -        | Н          |
| <u> </u>        | 80       | $\vdash$   | -            | _                | -        | -                                   |          | ┢          |          | Н          |
| <b>—</b>        | 81       | $\vdash$   | -            | _                | -        | $\vdash$                            | -        | _          |          |            |
|                 | 82       | -  | -            | $\vdash$         | _        |                                     | -        |            |          | Н          |
|                 | 83       | _  | -            | -                | T        |                                     |          |            | $\vdash$ | Н          |
|                 | 84       |  |              |                  |          |                                     | <u> </u> |            |          | Н          |
|                 | 85       |  | Ι.           |                  |          |                                     |          |            | _        | М          |
|                 | 86       |  |              |                  |          |                                     |          |            |          |            |
|                 | 87       |  |              | Ĺ                |          |                                     |          |            |          |            |
|                 | 88       |  |              |                  |          |                                     |          |            |          |            |
|                 | 89       |  |              |                  |          |                                     |          |            |          |            |
|                 | 90       |  |              |                  |          |                                     |          | L          |          |            |
| $\square$       | 91       |  |              | $ldsymbol{oxed}$ | L        |                                     |          | L          |          | Ш          |
| $\sqcup \sqcup$ | 92       | _  |              | L                | L_       | oxdot                               | _        | _          |          | Ш          |
| $\sqcup \sqcup$ | 93       |  | <u> </u>     | L_               | L_       | L.                                  | L        | _          | _        | Ш          |
|                 | 94       |  | <u> </u>     | <u> </u>         |          | L                                   | L.       | L.         | Ш        | Щ          |
|                 | 95       |  | _            | <u> </u>         |          | ldash                               | <u> </u> | L.         | Щ.       | Ш          |
| <b> </b>        | 96       |  | _            | <u> </u>         | $\vdash$ | $ldsymbol{ldsymbol{ldsymbol{eta}}}$ | _        | ļ          | <u> </u> | Щ          |
| igsquare        | 97       |  |              | L.               | L        | Ш                                   | <u> </u> | $\vdash$   | L_       | Щ          |
|                 | 98       |  |              | ļ                | Щ        | $\vdash$                            | <u> </u> | <b> </b> - | <u> </u> | Щ          |
| <b>  </b>       | 99       | _  |              | $\vdash$         | L-       |                                     | L.       |            |          | _          |
| LI              | 100      |  | _            |                  |          |                                     | L        |            |          |            |

| Claim |   | Date     |          |              |          |  |          |  |          |                 |
|-------|---|----------|----------|--------------|----------|--|----------|--|----------|-----------------|
|       |   | <b></b>  | T        | Γ            |          | Ť  | Г        | Г  | Г        | П               |
| ō     | Original  |          |          |              |          |  |          |  |          |                 |
| Final | ġ   |          | ĺ        |              |          | l  |          |  |          |                 |
| -     | ō   |          |          |              |          | ]  |          |  | 1        |                 |
|       | 101   | $\vdash$ | H        |              | ├        | ⊢  | -        | $\vdash$   | ├-       | $\vdash$        |
|       | 101<br>102  |          | ⊢        |              | -        | ├-   | ⊢        | -  | -        | -               |
|       | 102   | _        | <u> </u> | <u> </u>     | ├        | <u> </u>   | _        | <b>!</b> —                                       | <u> </u> | _               |
|       | 103   | _        |          | L            | _        | L.   | <u> </u> | _  | <u> </u> | L               |
|       | 103<br>104<br>105   | <u> </u> |          | ļ            | <u> </u> | <u> </u>   | <u> </u> | ļ  | _        |                 |
|       | 105   |          |          | L_           | _        |  | L        | _  |          |                 |
|       | 106<br>107<br>108   |          |          |              | _        |  |          | _  | <u> </u> |                 |
|       | 107   |          | L        |              | _        |  |          |  | L        |                 |
|       | 108   |          |          | L            | <u></u>  |  |          |  |          |                 |
|       | 109   |          |          |              |          |  |          |  |          |                 |
|       | 110   |          |          |              |          |  |          |  |          |                 |
|       | 111   |          |          |              |          | Г  |          |  |          |                 |
|       | 112   |          |          |              |          |  |          |  |          |                 |
|       | 113   |          |          |              |          |  |          |  |          |                 |
|       | 109<br>110<br>111<br>112<br>113<br>114<br>115                             |          |          |              |          |  |          | _  | Ι-       | П               |
|       | 115   |          |          |              | Τ        | $\vdash$   | <u> </u> |  |          | М               |
|       | 116   |          |          | <del> </del> |          |  | $\vdash$ | <del>                                     </del> | Ι        | H               |
|       | 117   |          |          | <del> </del> | $\vdash$ | <del>                                     </del> | $\vdash$ | <del>                                     </del> | $\vdash$ | $\vdash$        |
|       | 117<br>118  |          | <b>—</b> |              | $\vdash$ | <del>  -</del>                                   | $\vdash$ | ├  | $\vdash$ | H               |
|       | 119   | -        | $\vdash$ | _            | $\vdash$ | -  | -        | $\vdash$   | -        | Н               |
|       | 120   |          | _        |              | ⊢        | <u> </u>   |          | -  |          | $\vdash$        |
|       | 120   |          | $\vdash$ |              | <u> </u> | -  |          | ļ  | -        |                 |
|       | 121   |          |          | <u> </u>     |          |  |          |  |          |                 |
|       | 122   |          | _        |              | <u> </u> | L  | <u> </u> | <u> </u>   |          |                 |
|       | 120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130 |          | _        | _            | <u> </u> |  |          | ļ  |          | _               |
|       | 124   | _        | _        | _            |          |  |          |  |          | <b> </b>        |
|       | 125   |          |          |              | _        |  |          | <u> </u>   |          | Ш               |
|       | 126   |          |          |              | <u> </u> | _  | _        | _  | L        |                 |
| _     | 127   |          | _        |              | <u> </u> |  |          |  |          | Ш               |
|       | 128   |          |          |              | _        |  |          | _  |          | Ш               |
|       | 129   |          |          |              | _        |  |          |  |          |                 |
|       | 130   |          |          | _            |          |  |          |  |          | Ш               |
|       | 131<br>132  |          |          |              |          |  |          | L  |          | Ш               |
|       | 132   |          |          |              |          |  |          |  |          |                 |
|       | 133   |          |          |              |          |  |          | Ĺ  | L        |                 |
|       | 134   |          |          |              |          |  |          |  |          |                 |
|       | 135   |          |          |              |          |  |          |  |          |                 |
|       | 134<br>135<br>136   |          |          |              |          |  |          |  |          |                 |
|       | 137<br>138  |          |          |              |          |  |          |  |          |                 |
|       | 138   |          |          |              |          |  |          |  |          | $\Box$          |
|       | 139<br>140  |          |          |              |          |  |          |  |          | П               |
|       | 140   |          |          |              |          |  |          |  | Г        | Н               |
|       | 141   |          |          |              |          |  |          |  |          | $\vdash$        |
|       | 142   |          |          |              |          |  |          |  |          | Н               |
| 1     | 143   | $\neg$   | $\neg$   | _            |          |  |          |  | -        | Н               |
|       | 144   | $\dashv$ | $\neg$   |              |          |  |          |  | -        | $\vdash$        |
|       | 145   | -        | -        |              |          | -  |          | $\vdash$   |          | $\vdash$        |
|       | 146   | -        | -        |              |          | H  |          | $\vdash$   | Ι        | $\vdash \vdash$ |
|       | 147   |          |          | $\dashv$     |          | Н  |          | $\vdash$   | H        | $\dashv$        |
|       | 148   |          |          |              | -        | $\vdash$   | _        |  | $\vdash$ | $\vdash \dashv$ |
|       | 140   | -        |          |              |          | -  |          | Н  |          |                 |
|       | 149   |          |          | -            | _        | $\vdash$   |          | $\vdash$   | Щ        | _               |
| i     | 150   |          |          |              |          |  |          |  |          |                 |